

ABSTRACT

The present invention has an object to provide an electronic circuit capable of efficiently transmitting signals in a case where signals are transmitted over substrates with three or more substrates three-dimensionally mounted. In the present invention, LSI chips are stacked in three layers, and a bus is formed over three chips. The first through the third transmitter coils 13a, 13b, 13c and the first through the third receiver coils 15a, 15b, 15c are formed by wiring on the first through the third LSI chips 11a, 11b, 11c. These three pairs of transmitter and receiver coils are disposed so that the centers of the openings thereof are coincident with each other, whereby three pairs of transmitter and receiver coils 13 and 15 form inductive coupling to enable communications. The first through the third transmitter circuits 12a, 12b, 12c are connected to the first through the third transmitter coils 13a, 13b and 13c, respectively, and the first through the third receiver circuits 14a, 14b, 14c are connected to the first through the third receiver coils 15a, 15b, 15c, respectively.